EXHIBIT A

Vacuum Window Engineering Note
(per Fermilab ES&H Manual Chapter 5033.1)

Vacuum Window Number: _____

Identification and Verification of Compliance:

Prepared by	_____	Date	_____	Div/Sec	_____
Reviewed by	_____	Date	_____	Div/Sec	_____
Div/Sec Head	_____	Date	_____	Div/Sec	_____

Director's signature (or designee) if vacuum window requires an exception to the provisions of this chapter.

_____

Amendment No.	Reviewed by	Date

Vacuum Vessel Title for the vacuum vessel to which the Vacuum Window is attached.

_____

Vacuum Vessel Number for the vacuum vessel to which the Vacuum Window is attached.

_____

Vacuum Window Drawing Number (List all pertinent drawings):

_____
_____
_____
_____
_____

Drawing No.	Location of Originals

Laboratory location code	
Purpose of vacuum vessel and vacuum window	
Internal MAWP	
External MAWP	
Working Temperature Range	°F °F

1. Design Verification: Provide design calculations in the Note Appendix.

2. Fabrication: Is this vacuum window fabricated in house? [ ] Yes [ ] No
If "Yes", Attach the written fabrication procedure in the Note Appendix.

3. Inspection: Attach inspection reports and Travelers in the Note Appendix. Include date(s) of manufacture.

4. Testing: Attach failure and acceptance testing procedure and results in the Note Appendix. Include dates of testing

5. System Venting Verification:

Is the relieving system of the vacuum vessel to which this vacuum window is attached sufficiently sized such that if the vessel is pressurized, the maximum differential pressure across the window cannot exceed the design differential pressure of the vacuum window?
[ ] Yes [ ] No

Attach Calculations in the Note Appendix

6. Operating Procedure Section:

Is an operating procedure necessary for the safe operation of this vessel? [ ] Yes [ ] No
If "Yes", the operating procedure must be attached to the Note Appendix

7. Hazard Analysis: Is the safety factor on this vacuum window less than 2.0? [ ] Yes [ ] No
If "Yes", a hazard analysis must be prepared and attached to the Note Appendix

8. Degradation from Exposure: Will the integrity of the window be compromised over time by exposure to radiation or cyclic stress? [ ] Yes [ ] No
If "Yes", include in the technical appendix any requirements for recording exposure, as well as a change-out schedule.